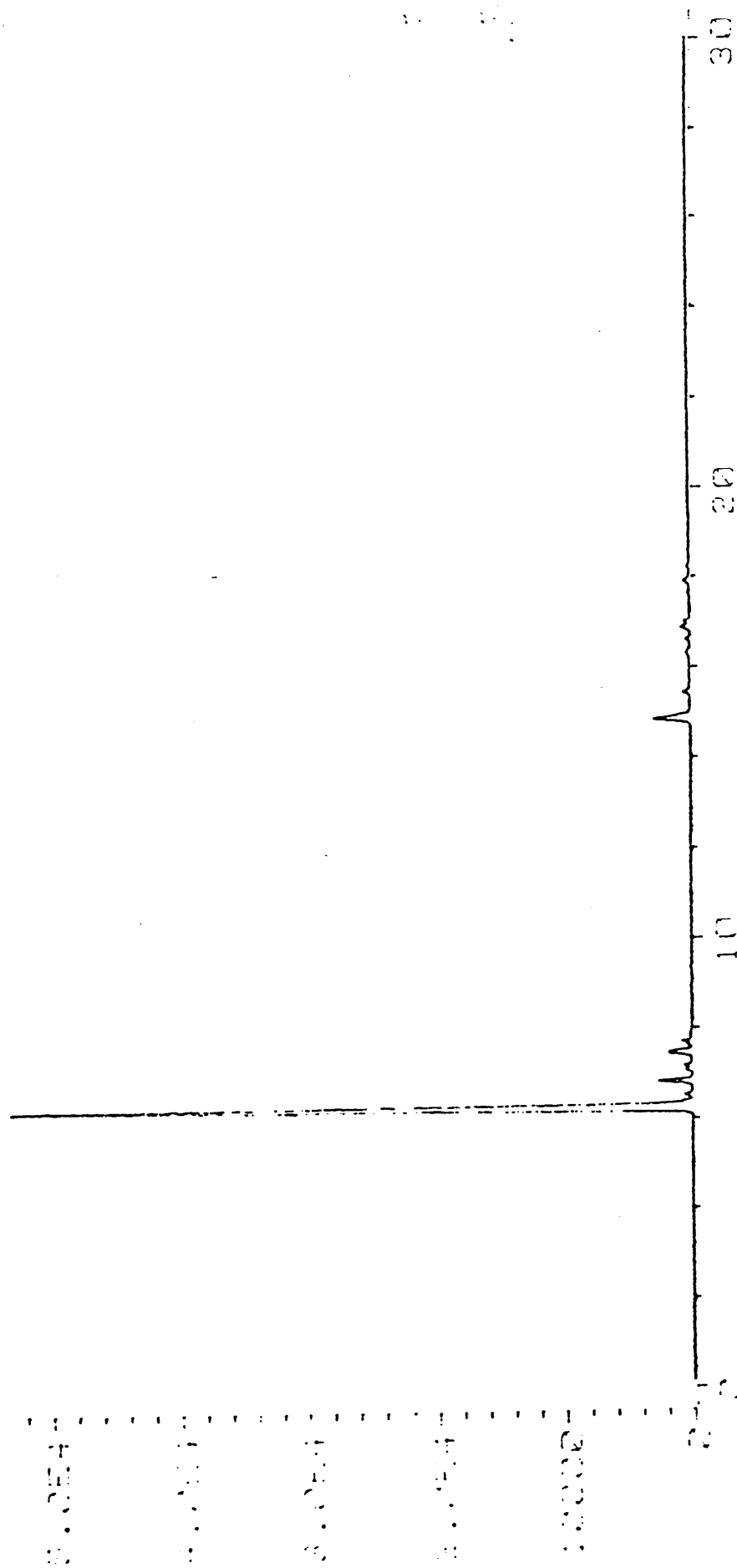
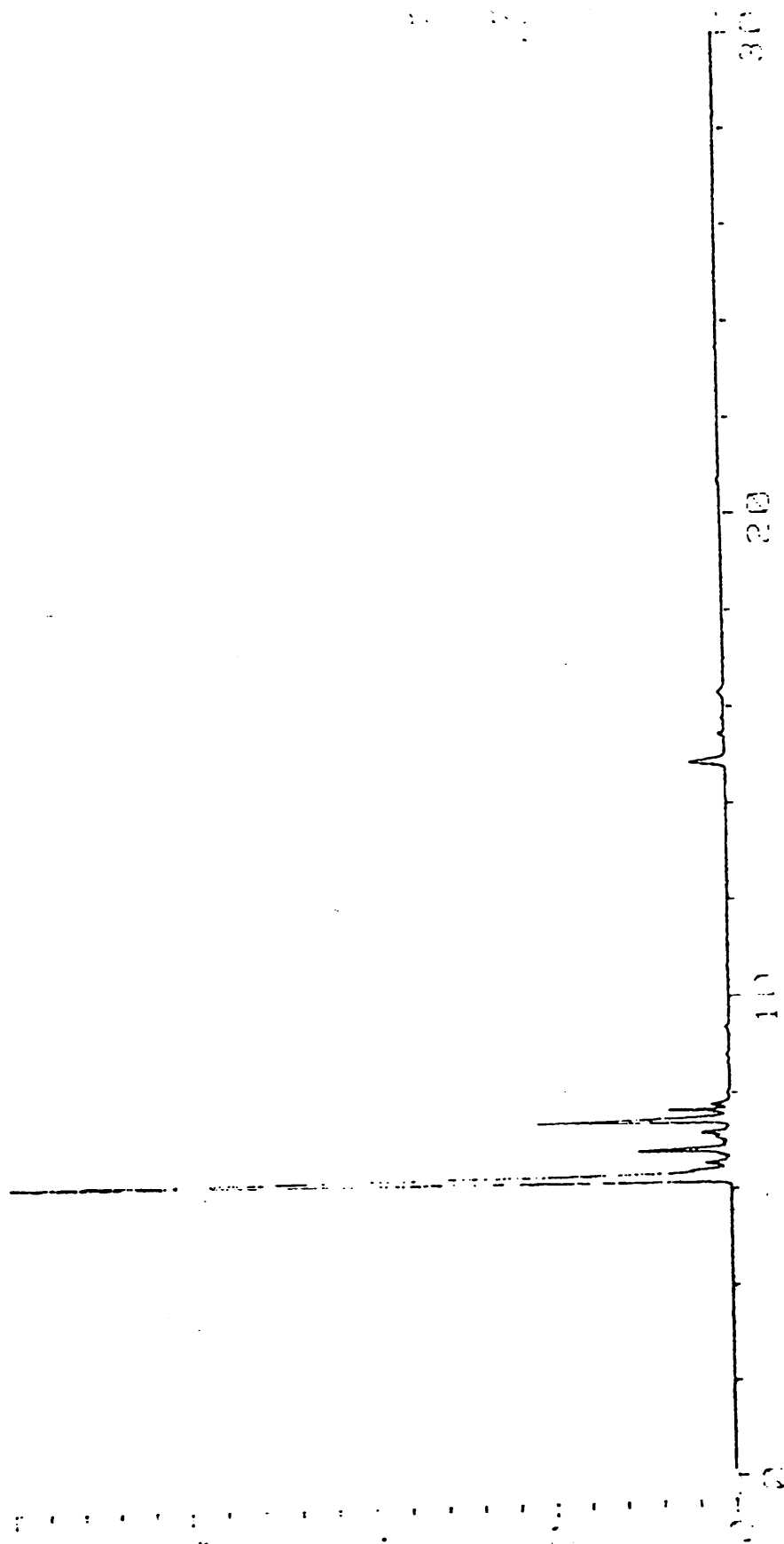


TIC of KPHS43.D



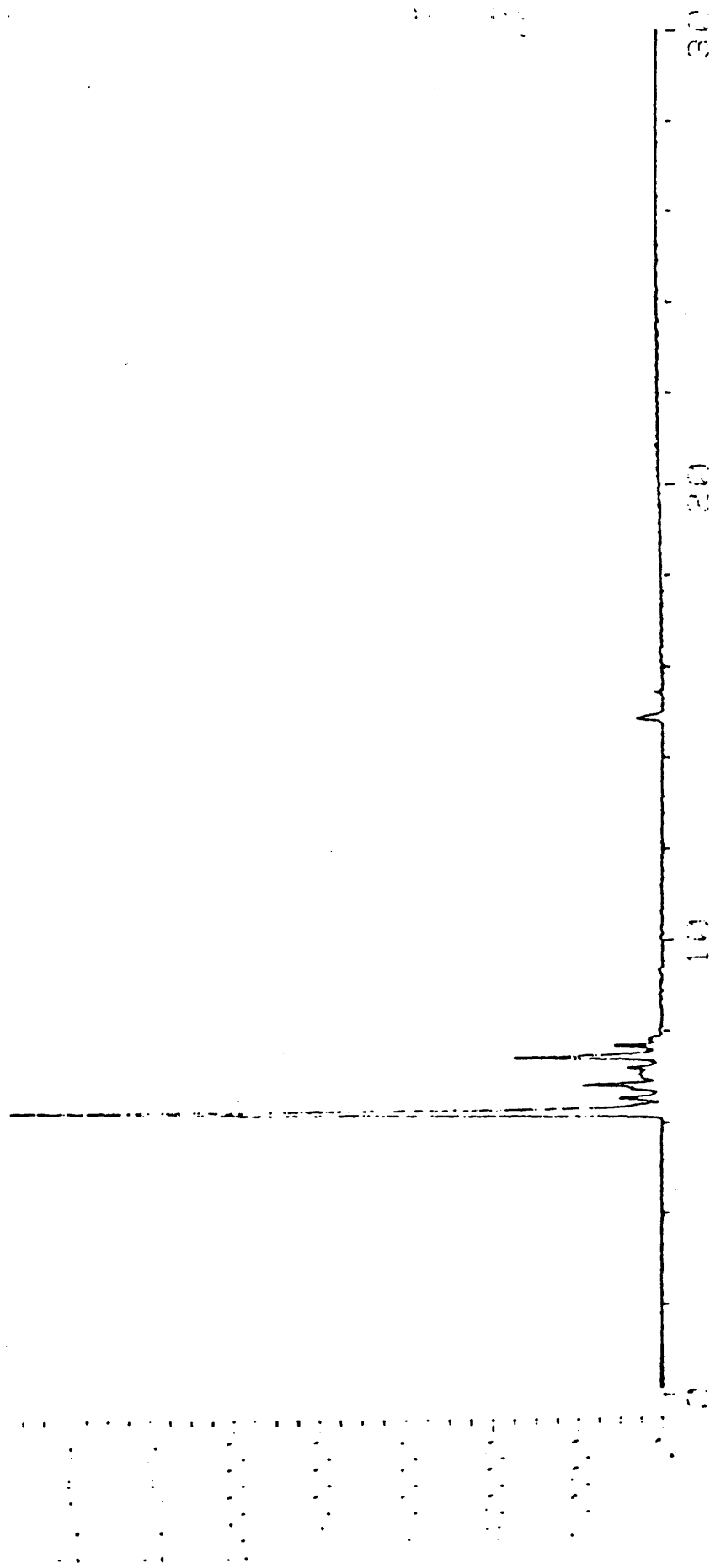
BRNZE VINYL COATED FIBERGLASS

TIC of KPHS44.D



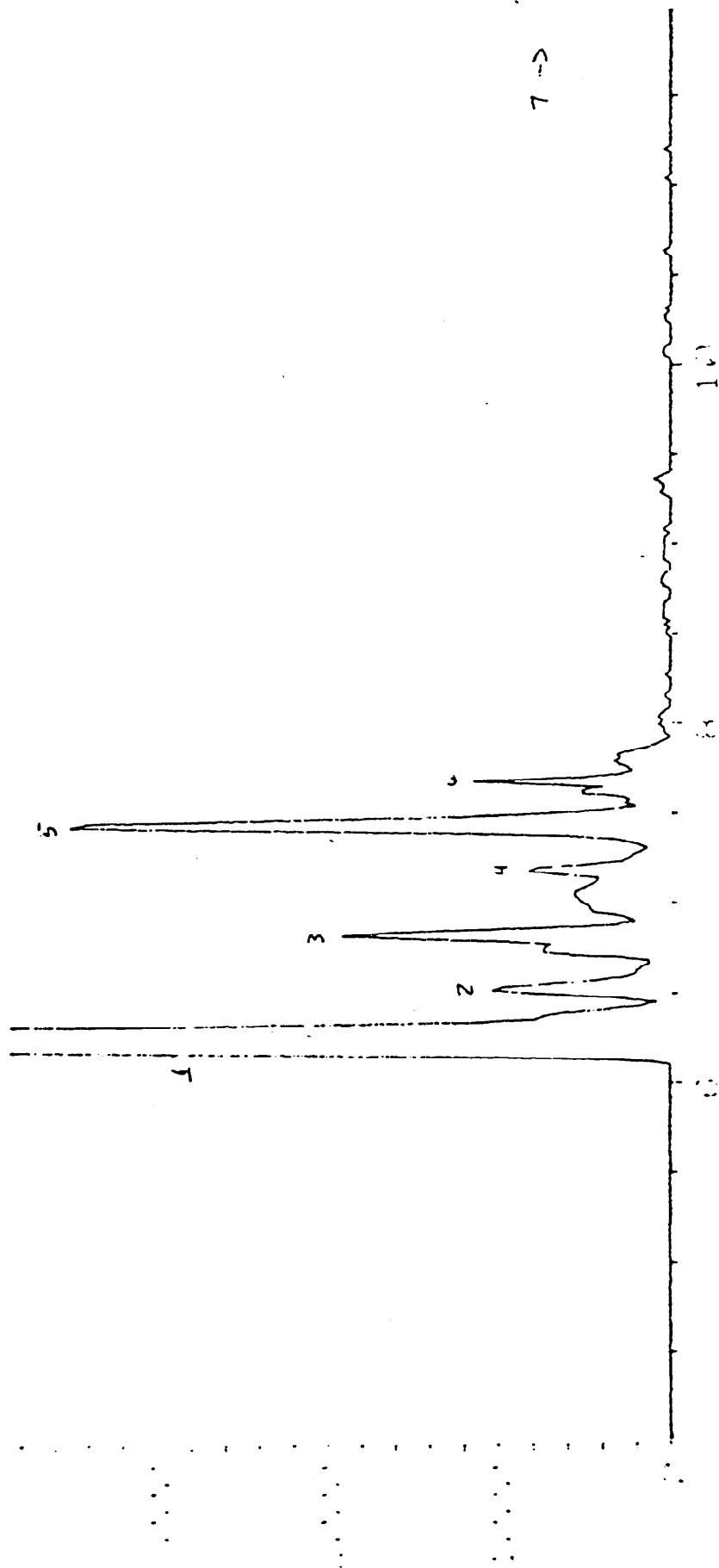
gray vinyl coated fiberglass

TIC of KPHS45.D



GRAY VINYL COATED FIBERGLASS FROM MAKING TUBE

TIC of KPHS45.D



## LIBRARY SEARCH RESULTS

Peak 1

Scan 344 (6.322 min) of KPHS45.D  
GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE

Library file: DATA:NBS\_REVE.L  
Library name: NBS MASS SPECTRAL DATABASE

	CAS #	Library Index #	Match Quality
1: 2-Pentanamine, 4-methyl- (9CI)	108098	1391	9794
2: 2-Hexanamine, 4-methyl- (9CI)	105419	2523	9785
3: 2-Butanamine, 3-methyl- (9CI)	598743	586	9771
4: Dodecanoic acid, 11-amino-, methyl ester	56817926	19553	9771
5: 2-Heptanamine (9CI)	123820	2525	9764
6: 2-Butanamine, 3,3-dimethyl- (9CI)	3850304	1398	9761
7: 2-Hexanamine (9CI)	5329793	1401	9754
8: Cyclopropane, 1-bromo-1,2-dichloro- (8CI)	24071634	13622	9733
9: Cyclopropane, 1,1-dibromo-2-chloro-2-flu	24071576	22007	9733
10: Phenol, 4-[(2-(methylamino)ethyl)- (9CI)	370989	7330	9726

RETRIEVE  
Which match (1 to 10):

Y: Set of 4 MS  
X: Scan 344 (6.322 min) of KP

Scan 342 (6.282 min) of KPHS45.D

GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	28	42.10	72	45.95	43	56.05	46
40.00	1531	44.00	10000	55.05	21	57.05	44
41.10	201	45.00	146				

LIBRARY SEARCH RESULTS

Scan 355 (6.526 min) of KPHS45.D

GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE Peak #2

Library file: DATA:NBS\_REVE.L

Library name: NBS MASS SPECTRAL DATABASE

	CAS #	Library Index #	Match Quality
1: Butanoic acid, 3-oxo-, 2-methylpropyl es	7779751	8653	9237
2: Nickel, [5,6,17,18-tetrahydrotetrabenzol	72101349	37007	8912
3: Propane, 2-(ethenyloxy)- (9CI)	926658	637	8745
4: Propanamide, 2-methyl- (9CI)	563837	676	8634
5: 1H-Cyclonona[1,2-c:5,6-c']difuran-1,3,6,	21794014	36955	8607
6: Butanoic acid, 2,2-diacetyl-3-oxo-, ethy	19446516	17412	8519
7: Acetamide, N-[2-(acetyloxy)-2-[4-(acetyl	55145647-	28994	8505
8: 1-Butanamine, 3-methyl-N-(3-methylbutyl)	28023747	13259	8481
9: Pentylamine, N-isobutyl-N-nitroso- (8CI)	28023805	13260	8477
10: 4,15:5,10-Dimethanobenzofuro[3',2':7,8]I	24945935	34414	8462

RETRIEVE

Which match (1 to 10):

Y: #8653 Butanoic acid, 3-oxo

X: Scan 355 (6.526 min) of KP

LIBRARY SEARCH RESULTS

Scan 372 (6.832 min) of KPHS45.D

GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE

Peak #3

Library file: DATA:NBS\_REVE.L

Library name: NBS MASS SPECTRAL DATABASE

	CAS #	Library Index #	Match Quality
1: 2-Pentanone, 5-chloro- (8CI9CI)	5891214	2947	9869
2: s-Indacen-1(2H)-one, 3,5,6,7-tetrahydro-	54889597	15484	9780
3: 3-Pentenoic acid, 4-methyl- (8CI9CI)	504858	2318	9765
4: 2-Hexanone, 5-methyl- (8CI9CI)	110123	2398	9765
5: 3(2H)-Furanone, 4-hydroxy-5-(hydroxymeth	66727944	6171	9708
6: 1-Propen-2-ol, acetate (8CI9CI)	108225	1242	9699
7: 3-Penten-2-one, 4-methyl-, O-methyloxime	56336119	3707	9681
8: 2-Propanone, 1-(1-methylethoxy)- (9CI)	42781124	2629	9673
9: 2-Pentanone, 5-(acetyloxy)- (9CI)	5185977	6188	9648
10: Acetic acid, 2-propenyl ester (9CI)	591877	1249	9632

RETRIEVE

Which match (1 to 10):

Y: #2947 2-Pentanone, 5-chlor

X: Scan 372 (6.832 min) of KP

## LIBRARY SEARCH RESULTS

Scan 391 (7.204 min) of KPHS45.D

GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE *P. 144*

Library file: DATA:NBS\_REVE.L

Library name: NBS MASS SPECTRAL DATABASE

	CAS #	Library Index #	Match Quality
1: Propane, 1,1'-sulfonylbis- (9CI)	598038	7162	9321
2: 4-Hepten-2-one, (E)- (9CI)	36678430	2150	9318
3: 2-Heptanone, 6-methyl-5-nitro- (9CI)	66972029	11269	9296
4: 2,4-Oxazolidinedione, 5,5-dimethyl- (8CI)	695534	4000	9293
5: Propane, 2-methyl- (8CI9CI)	75285	98	9290
6: 4-Penten-2-one (8CI9CI)	13891877	522	9282
7: Butane, 2,2-dichloro-3-methyl- (8CI9CI)	17773669	5489	9241
8: 4H-Pyran-4-one, 3,5-diacetyltetrahydro-2	55030665	17148	9239
9: 2,3-Pentanedione, 4-methyl- (8CI9CI)	7493585	2346	9195
10: Acetic acid, 2-propenyl ester (9CI)	591877	1249	9188

RETRIEVE

Which match (1 to 10):

Y: #5489 Butane, 2,2-dichloro

X: Scan 391 (7.204 min) of KP

## LIBRARY SEARCH RESULTS

Scan 404 (7.436 min) of KPHS45.D

GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE *P. 145*

Library file: DATA:NBS\_REVE.L

Library name: NBS MASS SPECTRAL DATABASE

	CAS #	Library Index #	Match Quality
1: Ethanone, 1-cyclobutyl- (9CI)	3019258	1083	8964
2: 3-Octen-2-one, 7-methyl- (9CI)	33046810	5670	8842
3: 1-Butanol, 3-methyl-, acetate (9CI)	123922	4155	8543
4: Cyanic acid, 2,2-dimethylpropyl ester (9	1459445	2250	8541
5: 2-Pentanone, 3-methylene- (8CI9CI)	4359777	1088	8514
6: 2H-Pyran, 3,4-dihydro-6-methyl- (8CI9CI)	16015115	1098	8500
7: 3-Hepten-2-one (8CI9CI)	1119444	2110	8480
8: 3-Butyn-2-ol (8CI9CI)	2028639	214	8405
9: 1-Propanone, 2-methyl-1-[2-(1-methylethy	56259155	7837	8394
10: 5-Undecene, 8-methyl-, (E)- (9CI)	39546855	10358	8373

RETRIEVE

Which match (1 to 10):

Y: #5670 3-Octen-2-one, 7-met

X: Scan 404 (7.436 min) of KP

## LIBRARY SEARCH RESULTS

Scan 418 (7.690 min) of KPHS45.D  
GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE *Peak 6*

Library file: DATA:NBS\_REVE.L  
Library name: NBS MASS SPECTRAL DATABASE

	CAS #	Library Index #	Match Quality
1: 2-Butanone, 4-butoxy-3-methyl- (9CI)	54340942	8731	9260
2: 3-Buten-2-one, 3-methyl- (8CI9CI)	814788	509	9140
3: 3-Penten-2-one, 3,4-dimethyl- (8CI9CI)	684946	2106	9011
4: 2-Butanone, 4-hydroxy-3-(hydroxymethyl)-	6868979	4429	9008
5: Cyclopenta[c]furo[3',2':4,5]furo[2,3-h]	55446270	29503	8949
6: Ethanone, 1-cyclopropyl- (9CI)	765435	507	8890
7: Ethanone, 1-(7-oxabicyclo[4.1.0]hept-1-y	15121014	5563	8881
8: 2-Pentanethiol, 2-methyl- (8CI9CI)	1633972	2830	8839
9: Propane, 2-methyl- (8CI9CI)	75285	98	8779
10: Heptane, 4-azido- (8CI9CI)	27126223	5730	8779

RETRIEVE

Which match (1 to 10):

Y: Set of 4 MS

X: Scan 418 (7.690 min) of KP

## LIBRARY SEARCH RESULTS

Scan 818 (14.882 min) of KPHS45.D  
GRAY VINYL COATED FIBERGLASS FROM MAILING TUBE *Peak 7*

Library file: DATA:NBS\_REVE.L  
Library name: NBS MASS SPECTRAL DATABASE

	CAS #	Library Index #	Match Quality
1: Acetamide, N-[2-[3,4-dihydroxy-.alpha.-[	28177120	38099	9334
2: Acetic acid, silver(1+) salt (8CI9CI)	563633	10151	9092
3: Butanoic acid, 3-hydroxy- (9CI)	300856	1553	8942
4: 2-Butanone, 3-hydroxy- (8CI9CI)	513860	729	8832
5: Propanoic acid, 2-(aminooxy)- (9CI)	2786223	1631	8779
6: Compactinervine, diacetate (ester) (8CI)	2111855	35159	8725
7: 2-Propanone, 1-methoxy- (8CI9CI)	5878193	737	8702
8: Butanoic acid, 3-hydroxy-, ethyl ester,	35608641	4434	8660
9: 2-Pentanol, 3-chloro-4-methyl-, (R*,S*)-	74685486	4917	8614
10: Propane, 1-(1-methylethoxy)- (9CI)	627087	1490	8591

RETRIEVE

Which match (1 to 10):

Y: #1553 Butanoic acid, 3-hyd

X: Scan 818 (14.882 min) of K





INDOOR AIR QUALITY INVESTIGATION  
GERYK'S RESIDENCE  
HATFIELD, MASSACHUSETTS  
OCTOBER 9, 1992

## INTRODUCTION

An indoor air quality assessment was performed by Envirocomp personnel at the Geryk residence on October 9, 1992. The purpose of the assessment was to attempt to identify any specific chemicals and their concentrations associated with coated fibrous glass screens. This report details the assessment protocol, sampling results, computer literature search, and conclusions of the assessment.

## BACKGROUND INFORMATION

The owner of the residence, Mr. Geryk, reported that objectional odors are released by the screens in selected windows and skylights. He stated that the strongest odors occur during the day when direct sunshine contacts the windows/screens. The screens have been taken out of the residence some time ago. They stated that the odors were much worse when the screens were newer and the temperature (both ambient and their specific location with direct sunlight). For this project, they were reinstalled the day before sampling was performed.

## SAMPLING DETAILS

The Geryk residence is located at #12 Plantation Dr. in Hatfield, Ma. The house, a single-floor ranch with a basement and an attached two car garage, is located in a residential neighborhood. The outside weather conditions at the time of arrival, 12:15 pm, were clear and cool with the measured temperature at 68 degrees Fahrenheit and the relative humidity at 42.5%.

## UNIDENTIFIED HYDROCARBONS

On each of the samples there were unidentified hydrocarbons at low levels. The Mass Spectrometer has a library of approximately 49,000 chemicals. However, for a match to be made, the peak (related to the amount of the chemical collected) needs to be large enough for it to be identifiable. For these samples, which is typical, various small peaks of aliphatic hydrocarbons were not identifiable. They were summed by weight, divided by the amount of air sampled, and reported as "Unidentified Hydrocarbons" in milligrams per cubic meter of air ( $\text{mg}/\text{M}^3$ ).

## XYLENE

On each sample, a small concentration of xylenes (all isomers) were identified. Xylenes may normally be found in solvent based paints and thinners, gasoline, and other petroleum based hydrocarbons. The xylenes are quite volatile, with vapor pressures of approx. 7 millimeters of mercury (mm HG) @  $21^\circ\text{C}$ , meaning that they readily evaporate off of a liquid that they are contained in. Although workplace exposure limits are not applicable to a residential setting, they are provided here only as a rough comparison of what is considered to be safe in the workplace to the levels found during this assessment in a residential setting. The OSHA limit for xylenes is  $435 \text{ mg}/\text{M}^3$  averaged over an 8 hour day. The concentrations found in the Geryk residence ranged from 0.015 to  $0.021 \text{ mg}/\text{M}^3$ , which is many times below this workplace limit.

## TOLUENE

Toluene, another aromatic chemical like xylene, was found on each of the samples at very low levels. Toluene may also be found in gasoline, paint thinners, and other petroleum distillates. Toluene is a volatile chemical with a vapor pressure of 37 mm HG @  $30^\circ\text{C}$ . The current OSHA limit is  $375 \text{ mg}/\text{M}^3$ ; the sample results in the Geryk residence ranged from 0.030 to  $0.083 \text{ mg}/\text{M}^3$ .

## CONCLUSIONS

Based on the nature of the above specifically identified chemicals, it is suggested that they are not from the window screens. These are relatively common chemicals that may be found in a residence from materials such as paints, cleaning compounds, and pressurized containers. They were all found at very low levels, well below what would generally be considered a health hazard. The levels found were also well below the reported odor thresholds<sup>1</sup>, meaning that on the day sampled, the average person would not be able to smell them.

The "unidentified hydrocarbons" may include materials that are from the window screens. However, due to their combined low concentration they were not identifiable by normal GC/MS techniques.

In conclusion, it was not possible during this brief assessment to identify specific chemical compounds believed to be directly related to the coating on the screens. The following reasons may explain why no screen related chemicals were identified during this assessment:

1. The screens had been taken out several months ago, and due to aging and being in a cooler, non-sunny location (garage), may have changed in some way so that this test was not representative of what they off-gassed during prolonged normal installation;
2. On the day of the assessment, the ambient and indoor temperature was cooler than a hot summer day. As stated in the February 21, 1992 report<sup>2</sup> from The University of Alabama at Birmingham, as the temperature of the test samples were increased, additional compounds were released and identified (note that at some point sample pyrolysis was probably taking place).
3. Humidity differences may be important as well. The relative humidity in the 40-45% range is normal for this time of the year; however, during humid periods in the summer can be much higher.

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<sup>1</sup> Odor Thresholds for Chemicals with Established Occupational Health Standards; American Industrial Hygiene Association, Akron, Ohio.

<sup>2</sup> Report from Robert G. Meeks, Ph.D., D.A.B.T., University of Alabama at Birmingham, dated February 21, 1992 to Mr. Anthony Gamble, Phifer Wire Products, Inc.

## Self Help- Public- Special IAQ study for Dr. Sidhu

DIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

LAB USE ONLY

OH SAMPLE NO.

931146

DATE SUBMITTED TO LAB

1-8-93

## SAMPLE SHEET

REPORT NO.	DATE
STAFF SIGNATURE	DISTRICT NO.
	ESTABLISHMENT NO.

ESTABLISHMENT NAME

Oakland County Division of Health

STREET

1200 N. Telegraph

CITY

Portage

ZIP

48341

## SAMPLE SHEET

DISTRICT SAMPLE NO.

1

DATE COLLECTED

12-29-92

OPERATION INVOLVED

Home-Kings

SAMPLE  
TECHNIQUEIMPINGER \_\_\_\_\_ FILTER PAPER \_\_\_\_\_ CHARCOAL TUBE ☒ MATERIAL \_\_\_\_\_ BAG \_\_\_\_\_

BUBBLER \_\_\_\_\_ SETTLED DUST \_\_\_\_\_ GRAB SAMPLE \_\_\_\_\_ OTHER \_\_\_\_\_

PUMP NO. \_\_\_\_\_ START TIME \_\_\_\_\_ FLOW READING \_\_\_\_\_ ELAPSED TIME \_\_\_\_\_ HRS \_\_\_\_\_ MIN

STOP TIME \_\_\_\_\_ FLOW READING \_\_\_\_\_

VOLUME AIR SAMPLED \_\_\_\_\_ LITERS \_\_\_\_\_ CU. FT. FLOW RATE \_\_\_\_\_ LITERS/MIN \_\_\_\_\_ CFM

POSSIBLE INTERFERENCES:

ANALYSIS DESIRED:

VOC Blank (5100)

LABORATORY FINDINGS:

Toluene (2400) → none detected  
Isopropyl alcohol (1500)

SEALS: \_\_\_\_\_ BROKEN ☒ INTACT \_\_\_\_\_ NONE

DATE REPORTED FROM LAB

1-12-93

CHEMIST

MUR 954

CALCULATIONS CHECKED BY

1-13-93

MUR #

DATE CHECKED

1-13-93

13 Jan 93

REMARKS:

## Self Help - Public - Special IAQ Study for Dr. Sidhu

DIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

LAB USE ONLY  
OH SAMPLE NO. 931147  
DATE SUBMITTED TO LAB 1-8-93

## SAMPLE SHEET

REPORT NO. \_\_\_\_\_ DATE 12 129 92  
STAFF SIGNATURE [Signature] NO. \_\_\_\_\_ DISTRICT \_\_\_\_\_ NO. \_\_\_\_\_

ESTABLISHMENT NAME Oakland County Division of Health  
STREET 1200 N. Telegraph CITY Pontiac  
ESTABLISHMENT NO. \_\_\_\_\_ ZIP 48341

## SAMPLE SHEET

DISTRICT SAMPLE NO. 2 DATE COLLECTED 12-29-92

OPERATION INVOLVED Home - Kings

SAMPLE TECHNIQUE IMPINGER \_\_\_\_\_ FILTER PAPER \_\_\_\_\_ CHARCOAL TUBE X MATERIAL \_\_\_\_\_ BAG \_\_\_\_\_  
BUBBLER \_\_\_\_\_ SETTLED DUST \_\_\_\_\_ GRAB SAMPLE \_\_\_\_\_ OTHER \_\_\_\_\_

PUMP NO. 17576 START TIME 9:23 FLOW READING 226031 ELAPSED TIME 7 HRS 427 MIN  
STOP TIME 4:30 FLOW READING 316366 0.476 ml/ct

VOLUME AIR SAMPLED 43 LITERS \_\_\_\_\_ CU. FT. FLOW RATE \_\_\_\_\_ LITERS/MIN \_\_\_\_\_ CFM

POSSIBLE INTERFERENCES: \_\_\_\_\_

ANALYSIS DESIRED: VOC (5100)

## LABORATORY FINDINGS:

Isopropyl alcohol (1560)\*\* → trace < 1 ppm\*

SEALS: \_\_\_\_\_ BROKEN ✓ INTACT \_\_\_\_\_ NONE

DATE REPORTED FROM LAB 1-12-93 CHEMIST MUR 954

CALCULATIONS CHECKED BY NFN R DATE CHECKED 1-13-93 13 Jan 93

## REMARKS:

\*1D confirmed via GC/MSD  
\*\* for information only - wrong desorbing solution.



*Public*  
- Special IAQ study  
for Dr. Sidhu

REQUEST FOR SELF-HELP SERVICES

Loan of Sampling & Testing Equipment (A)  
Use of Analytical Services (B)

Borrower Information

Establishment: Oakland County Division of Health Number of Employees:       
Street: 1200 N. Telegraph Telephone: (313) 858-1327  
City: Pontiac County: Oakland Zip Code:       
Purpose of Loan: IAQ Study

TO BE COMPLETED BY OHSD STAFF

(A) Sampling & Testing Equipment

Quantity	Equipment Description	MDPH I.D. #	Equipt. Use/Oper. Explained			Provided Instruct. Sheet		
			Yes	No	Known	Yes	No	Have
2	2 LOW FLOWS	67576	✓			✓		
	+ CHARGERS	67620	✓			✓		
1	Comb-gas meter <i>Gastec</i>	7207	✓					

(B) Analytical Services

Quantity	Description of Sample	Analysis Desired	Comments on Source Information
3	MEK		
2	Organic Solvents		

These services are provided under authority of P.A. 154 of 1974. Completion of this form is voluntary; however, provision of this information is necessary to participate in the program.

I hereby acknowledge receipt of the above named equipment/supplies and agree to assume full responsibility for its reasonable care and return by the date specified.

LOAN

Signature: Nelson Haynes

Print Name: Nelson Haynes

Date: 12-28-92

OHSD Staff: J. Fralowski

OH-920 7/86

NOTE

Equipment to be  
returned by

12-30-92  
(Date)

The above listed equipment/supplies have been returned and appear to have been reasonably treated.

Staff: [Signature]

Date: 12-30-92

Exceptions or comments:

Rec'd 01-04-93 by  
J. Fralowski

DIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

LAB USE ONLY  
OH SAMPLE NO. 931148  
DATE SUBMITTED TO LAB 1-8-93

## SAMPLE SHEET

REPORT NO. \_\_\_\_\_ DATE 12 29 92  
STAFF SIGNATURE [Signature] NO. \_\_\_\_\_ DISTRICT 91-04-93 NO. \_\_\_\_\_  
ESTABLISHMENT NO. \_\_\_\_\_

ESTABLISHMENT NAME Oakland County Division of Health  
STREET 1200 N. Telegraph CITY Pontiac  
ZIP 48341

## SAMPLE SHEET

DISTRICT SAMPLE NO. 3 DATE COLLECTED 12-29-92

OPERATION INVOLVED Home - King's

SAMPLE TECHNIQUE IMPINGER \_\_\_\_\_ FILTER PAPER \_\_\_\_\_ CHARCOAL TUBE \_\_\_\_\_ MATERIAL \_\_\_\_\_ BAG \_\_\_\_\_  
BUBBLER \_\_\_\_\_ SETTLED DUST \_\_\_\_\_ GRAB SAMPLE \_\_\_\_\_ OTHER (2) Silica Gel in series

PUMP NO. \_\_\_\_\_ START TIME \_\_\_\_\_ FLOW READING \_\_\_\_\_ ELAPSED TIME \_\_\_\_\_ HRS \_\_\_\_\_ MIN  
STOP TIME \_\_\_\_\_ FLOW READING \_\_\_\_\_

VOLUME AIR SAMPLED \_\_\_\_\_ LITERS \_\_\_\_\_ CU. FT. FLOW RATE \_\_\_\_\_ LITERS/MIN \_\_\_\_\_ CFM

POSSIBLE INTERFERENCES: \_\_\_\_\_

ANALYSIS DESIRED: MERBLANK (0430)

LABORATORY FINDINGS:

MEK (0430) → none detected

SEALS: \_\_\_\_\_ BROKEN ☒ INTACT \_\_\_\_\_ NONE

DATE REPORTED FROM LAB 1-20-93 CHEMIST NMR 954

CALCULATIONS CHECKED BY mfm AR DATE CHECKED 1-20-93 21 Jan 95

REMARKS:

DIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

LAB USE ONLY

OH SAMPLE NO.

931149

DATE SUBMITTED TO LAB

1-2-93

## SAMPLE SHEET

REPORT NO.

DATE

12 29 92

STAFF SIGNATURE

NO.

DISTRICT

NO.

ESTABLISHMENT NAME

Oakland County Division of Health

01-04-93

ESTABLISHMENT NO.

STREET

1200 N. Telegraph

CITY Pontiac

ZIP 48341

## SAMPLE SHEET

DISTRICT SAMPLE NO.

4

DATE COLLECTED 12-29-92

OPERATION INVOLVED Home - King's

SAMPLE  
TECHNIQUE

IMPINGER \_\_\_\_\_ FILTER PAPER \_\_\_\_\_ CHARCOAL TUBE \_\_\_\_\_ MATERIAL \_\_\_\_\_ BAG \_\_\_\_\_

BUBBLER \_\_\_\_\_ SETTLED DUST \_\_\_\_\_ GRAB SAMPLE \_\_\_\_\_ OTHER Silica Gel

PUMP NO. 67620 START TIME 9:23 FLOW READING 611273 ELAPSED TIME — HRS 427 MIN  
STOP TIME 4:30 FLOW READING 717733 1459 ml/ct

VOLUME AIR SAMPLED 49 LITERS — CU. FT. FLOW RATE 7 LITERS/MIN 7 CFM

POSSIBLE INTERFERENCES:

ANALYSIS DESIRED: MEK-Tube A (0430)

LABORATORY FINDINGS:

MEK (0430) → none detected &lt; 1ppm

SEALS: \_\_\_\_\_ BROKEN ☒ INTACT \_\_\_\_\_ NONE

DATE REPORTED FROM LAB 1-20-93

CHEMIST MNR 954

CALCULATIONS CHECKED BY mfm

DATE CHECKED 1-20-93 21 Jan 93

REMARKS:



p.6 c

DIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

LAB USE ONLY

OH SAMPLE NO.

931150

DATE SUBMITTED TO LAB

1-2-93

## SAMPLE SHEET

ESTABLISHMENT NAME <u>Oakland County Division of Health</u>		REPORT NO.	DATE <u>12</u> <u>29</u> <u>92</u>
STREET <u>1200 N. Telegraph</u>		STAFF SIGNATURE <u>[Signature]</u> <u>01-04-93</u>	DISTRICT NO. <u>11</u>
CITY <u>Pontiac</u>		ESTABLISHMENT NO.	
ZIP <u>48341</u>			

## SAMPLE SHEET

DISTRICT SAMPLE NO. 5DATE COLLECTED 12-29-92OPERATION INVOLVED Home - A King'sSAMPLE  
TECHNIQUE

IMPINGER \_\_\_\_\_ FILTER PAPER \_\_\_\_\_ CHARCOAL TUBE \_\_\_\_\_ MATERIAL \_\_\_\_\_ BAG \_\_\_\_\_

BUBBLER \_\_\_\_\_ SETTLED DUST \_\_\_\_\_ GRAB SAMPLE \_\_\_\_\_ OTHER Silica Gel

PUMP NO. 67620 START TIME 9:23 FLOW READING 611273 ELAPSED TIME X HRS 427 MIN  
STOP TIME 4:30 FLOW READING 717433 0.459 ml / ct

VOLUME AIR SAMPLED 49 LITERS \_\_\_\_\_ CU. FT. FLOW RATE \_\_\_\_\_ LITERS/MIN \_\_\_\_\_ CFM

POSSIBLE INTERFERENCES: \_\_\_\_\_

ANALYSIS DESIRED: MEK Tube B (0430)

LABORATORY FINDINGS:

MEK (0430) → none detected < 1ppmSEALS: \_\_\_\_\_ BROKEN ☒ INTACT \_\_\_\_\_ NONEDATE REPORTED FROM LAB 1-20-93CHEMIST MM5954CALCULATIONS CHECKED BY mfm

DATE CHECKED

1-20-932/1/93

REMARKS:

DIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

LAB USE ONLY

OH SAMPLE NO.

931078

DATE SUBMITTED TO LAB

12-22-92

## SAMPLE SHEET

REPORT NO.

DATE

12-16-92

STAFF SIGNATURE

NO.

DISTRICT

NO.

ESTABLISHMENT NAME

Oakland County H.D. c/o Nelson Hayes

ESTABLISHMENT NO.

STREET

1200 N. Telegraph

CITY

Pontiac

ZIP

48341

## SAMPLE SHEET

DISTRICT SAMPLE NO. 1

DATE COLLECTED 12-16-92

OPERATION INVOLVED Home - 6710 Sun Valley Dr.

SAMPLE  
TECHNIQUE

IMPINGER

FILTER PAPER

CHARCOAL TUBE

MATERIAL

BAG

BUBBLER

SETTLED DUST

GRAB SAMPLE

OTHER

#55 Silica gel

PUMP NO.

START TIME

FLOW READING

ELAPSED TIME

HRS

MIN

STOP TIME

FLOW READING

VOLUME AIR SAMPLED

LITERS

CU. FT.

FLOW RATE

LITERS/MIN

CFM

POSSIBLE INTERFERENCES:

Blank

ANALYSIS DESIRED:

MEK Tube #1 (0430)

LABORATORY FINDINGS:

MEK (0430) → none detected

SEALS:

BROKEN

INTACT

NONE

DATE REPORTED FROM LAB

1-20-93

CHEMIST

MMR 954

CALCULATIONS CHECKED BY

MFM

DATE CHECKED

1-20-93

21 Jan 93

REMARKS:

Self-Help Public

Special  
IAQ StudyDIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTHLAB USE ONLY  
OH SAMPLE NO. 931079  
DATE SUBMITTED TO LAB 12-22-92

## SAMPLE SHEET

REPORT NO.	DATE
12 16 92	12 16 92
STAFF SIGNATURE	NO.
<i>J. Fialkowski</i>	11
DISTRICT	NO.
11	11

ESTABLISHMENT NAME	ESTABLISHMENT NO.
<u>Oakland County H.D. c/o Nelson</u>	
STREET	CITY
<u>1200 N. Telegraph</u>	<u>Pontiac</u>
	ZIP
	<u>48341</u>

## SAMPLE SHEET

DISTRICT SAMPLE NO. 2 DATE COLLECTED 12-16-92OPERATION INVOLVED Home 6710 Sun Valley Dr

SAMPLE TECHNIQUE	IMPINGER	FILTER PAPER	CHARCOAL TUBE	MATERIAL	BAG
	BUBBLER	SETTLED DUST	GRAB SAMPLE	OTHER	<u>#55 Silicagel</u>

PUMP NO. \_\_\_\_\_ START TIME \_\_\_\_\_ FLOW READING \_\_\_\_\_ ELAPSED TIME \_\_\_\_\_ HRS \_\_\_\_\_ MIN  
STOP TIME \_\_\_\_\_ FLOW READING \_\_\_\_\_

VOLUME AIR SAMPLED \_\_\_\_\_ LITERS \_\_\_\_\_ CU. FT. FLOW RATE \_\_\_\_\_ LITERS/MIN \_\_\_\_\_ CFM

POSSIBLE INTERFERENCES: BlankANALYSIS DESIRED: MEK Tube #2 (0430)

## LABORATORY FINDINGS:

MEK(0430) → none detectedSEALS: \_\_\_\_\_ BROKEN ☒ INTACT \_\_\_\_\_ NONEDATE REPORTED FROM LAB 1-20-93 CHEMIST MMR 954CALCULATIONS CHECKED BY mfm H DATE CHECKED 1-20-93 21 Jan 93

REMARKS:

DIVISION OF OCCUPATIONAL HEALTH  
BUREAU OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

LAB USE ONLY

OH SAMPLE NO. 931080DATE SUBMITTED TO LAB 12-22-92

## SAMPLE SHEET

REPORT NO.	DATE
STAFF SIGNATURE	DISTRICT
NO.	NO.

ESTABLISHMENT NAME <u>Oakland County H.D. do Nelson Haynes</u>	ESTABLISHMENT NO.
STREET <u>1200 N. Telegraph</u>	CITY <u>Pontiac</u>
	ZIP <u>48341</u>

## SAMPLE SHEET

DISTRICT SAMPLE NO. <u>5-A, 5-B</u>	DATE COLLECTED <u>12-16-92</u>											
OPERATION INVOLVED <u>Home 6710 Sun Valley Dr.</u>												
<table border="1"> <tr> <td rowspan="2">SAMPLE TECHNIQUE</td> <td>IMPINGER</td> <td>FILTER PAPER</td> <td>CHARCOAL TUBE</td> <td>MATERIAL</td> <td>BAG</td> </tr> <tr> <td>BUBBLER</td> <td>SETTLED DUST</td> <td>GRAB SAMPLE</td> <td>OTHER</td> <td><u>Siliqua gel #55 (2<sup>nd</sup> series)</u></td> </tr> </table>		SAMPLE TECHNIQUE	IMPINGER	FILTER PAPER	CHARCOAL TUBE	MATERIAL	BAG	BUBBLER	SETTLED DUST	GRAB SAMPLE	OTHER	<u>Siliqua gel #55 (2<sup>nd</sup> series)</u>
SAMPLE TECHNIQUE	IMPINGER		FILTER PAPER	CHARCOAL TUBE	MATERIAL	BAG						
	BUBBLER	SETTLED DUST	GRAB SAMPLE	OTHER	<u>Siliqua gel #55 (2<sup>nd</sup> series)</u>							
PUMP NO. <u>67620</u> START TIME <u>9:17 am</u> FLOW READING <u>511259</u> ELAPSED TIME <u>-</u> HRS <u>450</u> MIN STOP TIME <u>4:47 pm</u> FLOW READING <u>486755</u> <u>0.459 ml/ct</u>												
VOLUME AIR SAMPLED <u>57.1</u> LITERS <u>-</u> CU. FT. FLOW RATE <u>0.1</u> LITERS/MIN <u>-</u> CFM												

POSSIBLE INTERFERENCES:

ANALYSIS DESIRED: MEK (0430)

LABORATORY FINDINGS:

MEK (0430) → none detected 2 ppmSEALS: - BROKEN ✓ INTACT - NONEDATE REPORTED FROM LAB 1-20-93 CHEMIST MMR 954CALCULATIONS CHECKED BY MFM AK DATE CHECKED 1-20-93 21 Jan 93

REMARKS:

- 1) I don't know (but assume) that tube 5-A is front & 5-B is back. We had discussed the need to identify front & back before giving him the media. JF
- 2) I discussed strange start & stop readings with Nelson - he insists counter went through 0 & restarted, but upon inspection, pump wasn't going any faster than normal. I am assuming he copied readings in wrong spot. JF
- 3) Nelson also dated his samples 9-92 instead of 12-92. -?-



DIVISION OF OCCUPATIONAL HEALTH  
MICHIGAN DEPARTMENT OF PUBLIC HEALTH  
3500 N. LOGAN, P. O. BOX 30035  
LANSING, MI 48909  
(517) 335-8250

PUBLIC - SPECIAL  
IAQ  
STUDY

REQUEST FOR SELF-HELP SERVICES

Loan of Sampling & Testing Equipment (A)  
Use of Analytical Services (B)

Borrower Information

Establishment: Nelson Haynes / Oakland County Health Dept. Number of Employees: \_\_\_\_\_  
Street: 1200 N. Telegraph Telephone: (313) 858-1327  
City: Pontiac County: Oakland Zip Code: \_\_\_\_\_  
Purpose of Loan: IAQ SPECIAL STUDY

TO BE COMPLETED BY OHSD STAFF

(A) Sampling & Testing Equipment

Quantity	Equipment Description	MDPH I.D. #	Equipmt. Use/Oper. Explained			Provided Instruct. Sheet		
			Yes	No	Known	Yes	No	Have
2	LOW FLOW PUMPS	67620	✓				✓	
	+chargers	67576	✓				✓	

Pump # 67620 (white on charger) = 1.12 LPM  
12-14-92 YF 10:15 AM = .459 ml/cb } (2) #55 in series

(B) Analytical Services

Quantity	Description of Sample	Analysis Desired	Comments on Source Information
4	2	MEK	
2		Sensore, organic HC	

These services are provided under authority of P.A. 154 of 1974.  
Completion of this form is voluntary; however, provision of this  
information is necessary to participate in the program.

I hereby acknowledge receipt of the above named equipment/  
supplies and agree to assume full responsibility for its  
reasonable care and return by the date specified.

LOAN

Signature: [Signature]

Print Name: Nelson Haynes

L : 12-14-92

OHSD Staff: J. Fialkowski

OH-920 7/86

NOTE

Equipment to be  
returned by

(Date)

The above listed equipment/  
supplies have been returned  
and appear to have been  
reasonably treated.

Staff: J. Fialkowski

Date: 12-18-92

Exceptions or comments:

# HEALTH EFFECTS GROUP, INC.

P.O. Box 41778 Tucson, Arizona 85717 (602) 886-4442

Toxicology  
Environmental Health  
Industrial Hygiene

## Emissions From Polymer Coated Fiberglass Screening Material

### A Summary of Study Findings

Submitted by:

Clifton D. Crutchfield, Ph.D.  
Certified Industrial Hygienist

April 27, 1993